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EXAMINER

POON, KING Y

ART UNIT

PAPER NUMBER

2624

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/443,677

Applicant(s)

FARRELL, MICHAEL E.

Examiner

King Y. Poon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1-3,5,10-14 and 16-19 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 4,6-9,15 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 30 April 2001 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- ~~If approved, corrected drawings are required in reply to this Office action.~~
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 13 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 13 and 14: Claims 13 and 14 recite the limitation "wherein individual output media" in lines 1 and 2. There is insufficient antecedent basis for this limitation in the claim. It is unclear whether the individual output media is referring to the marker/slip sheets used in abstract finishing (see abstract of the application) or the printed document sheets.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by DeHority (US 5,129,639).

Regarding claim 1: DeHority teaches a method of finish processing (e.g., stapling, column 4, line 69) a set of output media, (document, column 2, line 66) comprising: receiving a first finishing instruction (e.g., the document requirement instructing the document to be right stapling, column 8, lines 1-4, and column 8, line 14) corresponding to a first finishing operation (right stapling) associated with the set of output media (document media, column 2, line 66); and based on a determination (determined to use left stapling instead of right stapling, column 8, lines 13-17) to process the set of output media by other than the first finishing operation, substituting a second finishing instruction (set the document requirement for left stapling, column 8, lines 15-18) corresponding to a second finishing operation for the first finishing instruction.

Regarding claim 2: DeHority teaches applying the second finishing operation to the set of output media. (Produce the printed document as desired by user, column 2, lines 65-66)

Regarding claim 3: DeHority teaches determining unavailability (42, fig. 2A, column 8, lines 13-18) of the first finishing operation (right stapling, column 8, lines 14); and, selecting a substitute finishing instruction (left stapling, column 8, lines 17) associated with an available finishing operation (Column 12, lines 30-43).

Regarding claim 17: DeHority teaches a printing system (fig. 1) comprising: a user interface (computer 10 that allows user to send print job, fig. 1, column 2, lines 45-47) for

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supplying the printing system with data (job requirement, column 3, lines 5-6, are supply together with the document from the computer, column 12, lines 65-68, column 2, lines 44-49) including a desired finishing instruction (stapling position in job requirement, column 3, line 34, e.g., right stapling, column 8, line 14); a finishing element (stapler, column 2, line 60) which applies a finishing operation (stapling) to a print job; and a processor (print control processor, column 2, lines 54-55) in communication with the user interface (the print control processor communicates with the computer through a network, column 2, lines 50-55) and the finishing element (e.g., selecting a configuration for the stapler, column 2, lines 60-61; e.g., instructing the stapler for a left stapling column 8, line 7), the processor determining compatibility between the finishing element (e.g., determining whether the stapler would perform right stapling, column 8, lines 13-17, column 12, lines 30-43) and the desired finishing instruction, (right stapling) and upon determining incompatibility, (column 8, line 14) selecting a compatible finishing instruction (left stapling, column 8, line 17, column 12, lines 30-44) for the finishing element.

Regarding claim 18: DeHority teaches wherein the processor substitutes (column 8, lines 13-17) the selected compatible finishing instruction (left stapling, column 8, line 17) for the desired finishing instruction (Right stapling, column 8, line 14).

Regarding claim 19: DeHority teaches wherein the processor determines user preference (72, fig. 2B, column 4, lines 30-36) regarding the selected compatible finishing instruction.

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5. Claims 10-12, 14, 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ojha (US 4,987,447).

Regarding claim 10: Ojha teaches a method of processing a print job (jobs, column 2, line 1-6; e.g., the print job/production run of a print shop for copying originals, column 3, lines 25-28) using abstract finishing (printing instruction sheet used for a print job, column 3, lines 20-25, column 1, lines 40-45, column 2, lines 1-6, 40-43) comprising: receiving the print job (reproduction apparatus receives a print job, e.g., a copy job, columns 1-5, column 3, lines 25-30) including desired finishing instructions (the print job uses print functions of the reproduction apparatus such as stapling, column 2, lines 39-42. In order for the print job to be finished according to the print job requirements, the reproduction apparatus needs to be set up properly, column 2, lines 1-6. For example, if the print job calls for using stapling function, the reproduction apparatus is to be set up such that the reproduction apparatus would perform the stapling functions. Therefore, the stapling information in the print job corresponding to the set up instruction for stapling instructs the reproduction apparatus to be set up properly to perform stapling. Therefore, the print job includes desired finishing instruction, e.g., set up instruction for stapling); generating a marker (machine readable set up instructions, column 3, lines 20-30, or human readable indicia correspond to the set up instructions of a control sheet, column 3, lines 30-35) representing at least one of the desired finishing instructions (the setup instructions in the control sheet, column 2, lines 1-6; the set up instructions are used to set up the reproduction apparatus for carrying out specific functions for the print job; e.g., stapling); and placing (inserted,

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column 3, line 27) the marker at a selected location relative (inserted into the stack of the originals of the print job, column 3, lines 25-28) to the print job. (The copy job/production run of a print shop, column 2, lines 1-6)

Regarding claim 11: Ojha teaches converting the desired finishing instruction into a human-readable description of the desired finishing instruction (marker); and marking the human-readable description of the desired finishing instruction on a slipsheet. (Control sheet, column 3, lines 30-36)

Regarding claim 12: Ojha teaches converting the desired instruction into a machine-readable description of the desired finishing instruction (marker); and marking the machine-readable description of the desired finishing instruction on a slipsheet. (Receiver sheet/control sheet, column 3, lines 20-25)

Regarding claim 14: Claim 14 depends on claim 10, and claim 10 is claiming abstract finishing. In the abstract of the application, abstract finishing is to include insertion of slipsheets and/or marking separators between compilation boundaries of a print job. The individual output media is interpreted as the individual control sheets being printed by Ojha, column 3, lines 20-25.

Ojha teaches wherein individual output media comprise an area for job content, (set up instructions are part of a print job. Therefore, set up instructions are job content) and the placing step comprises placing the marker on the area for job content. (Column 3, lines 20-35, teaches the receiver sheet/control sheet has an area for the set up instruction/job content, and placing the marker/setup instructions on the area for the setup instructions/job content)

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Regarding claim 16: Ojha teaches wherein the placing step comprises inserting a marker (e.g., machine readable or human readable set up instructions, column 3, lines 20-35) at compilation boundaries (stack of originals, column 3, lines 25-28; originals are within compilation boundaries of the print job because the originals are to be scanned to generate print data for the print job, column 3, line 25-28) within the print job. (The copy job/production run of a print shop, column 2, lines 1-6)

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeHority as applied to claim 1 above, and further in view of Edens et al. (US 6,249,716)

Regarding claim 5: DeHority does not teach wherein the applying step comprises placing a slipsheet relative to the set of output media indicative of where a finishing operation is to be performed.

Eden, in the same area of finishing print jobs, teaches placing a slipsheet (verification sheet, column 5, line 66) relative to the set of output media (e.g., the verification sheet is placed



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after certain number of sheets of a printed document, column 6, lines 1-5) indicative of where a finishing operation is to be performed. (E.g., finishing operation is to be performed on the next document, column 6, lines 64-67)

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified DeHority's steps of applying the second finishing operation to include: placing a slipsheet relative to the set of output media indicative of where a finishing operation is to be performed.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified DeHority's steps of applying the second finishing operation by the teaching of Edens because of the following reasons: (a) it would have allowed the system to automatically recognize which part of the print media is to be applied with the second finishing operation; and (b) it would have also allowed to system to automatically detect an error in printing the document as taught by Eden at column 6, lines 1-10, and would have allowed a recovery process to be carried out to ensure an accurate print job production.

8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ojha as applied to claim 10 above, and further in view of Kurogane. (US 5,126,858)

Regarding claim 13: Claim 13 depends on claim 10, and claim 10 is claiming abstract finishing. In the abstract of the application, abstract finishing is to include insertion of slipsheets

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and/or marking separators between compilation boundaries of a print job. The individual output media is interpreted as the individual control sheets being printed by Ojha, column 3, lines 20-25.

Ojha does not teach wherein individual output media comprise a printed area and a border area, and the placing step comprises placing the marker on the border area of individual output media.

Kurogane, in the same area of using a control sheet for controlling a print job, teaches an individual control sheet (e.g., fig. 2) comprise a printed area (the area surrounded by a border where four detection marks are located, fig. 2, column 4, lines 64-69, column 5, lines 1-10) and a border area, (the border of the print sheet that contains the four detection marks, fig. 2) and the placing step comprises placing the marker (detection marks) on the border area of individual output media. The detection marks are machine readable marks containing information.

Since Ojha teaches to place machine readable marks containing set up instruction information on a control sheet (column 3, lines 20-25), it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Ojha's control sheet producing method to include: individual output media/control sheets comprise a printed area and a border area, and the placing step comprises placing the marker on the border area of individual output media.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Ojha's control sheet producing method by the teaching of Kurogane because of the following reasons: (a) placing the machine readable instructions on the

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border of the print sheet would have allowed the instructions information to be identified immediately after the start of a scanning operation as taught by Kurogane at column 5, lines 2-10, and (b) the area other than the border would be used as print area to further utilize the control sheet.

*Allowable Subject Matter*

9. Claims 4, 6, 7, 8, 9, 15 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 4: The cited references taken individually or in combination fails to particularly disclosed a method of finish processing a set of output media comprising: based on a determination to process the set of output media by other than a first finishing operation of a received first finishing instruction; substitute a second finishing instruction corresponding to a second finishing operation for the first finishing instruction wherein the second finishing operation is selected from "a collating process, a registration process, a binding process, a cutting process, a hole forming process, and an abstract finishing process." It is noted that the closest prior art, DeHority (US 5,129,639), shows a similar method of finish processing a set of output media comprising: based on a determination to process the set of output media by other than a first finishing operation of a received first finishing instruction; substitute a second finishing instruction

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corresponding to a second finishing operation for the first finishing instruction. However, DeHority fails to disclose the second finishing operation is selected from a collating process, a registration process, a binding process, a cutting process, a hole forming process, and an abstract finishing process, as claimed.

Regarding claim 6: The cited references taken individually or in combination fails to particularly disclosed a method of finish processing a set of output media comprising: based on a determination to process the set of output media by other than a first finishing operation of a received first finishing instruction; substitute a second finishing instruction corresponding to a second finishing operation for the first finishing instruction wherein “while applying the second finishing operation; placing a slip sheet, relative to the set of output media, with information including the first finishing instruction.” It is noted that the closest prior art, DeHority (US 5,129,639), shows a similar method of finish processing a set of output media comprising: based on a determination to process the set of output media by other than a first finishing operation of a received first finishing instruction; substitute a second finishing instruction corresponding to a second finishing operation for the first finishing instruction. Edens et al. (US 6,249,716) teaches placing a slip sheet relative to a set of output media. However, Eden and DeHority, either singularly or in combination, fail to anticipate or render the limitation: while applying the second finishing operation; placing a slip sheet, relative to the set of output media, with information including the first finishing instruction, obvious.

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Regarding claim 7: The cited references taken individually or in combination fails to particularly disclosed a method of finish processing a set of output media comprising: based on a determination to process the set of output media by other than a first finishing operation of a received first finishing instruction; substitute a second finishing instruction corresponding to a second finishing operation for the first finishing instruction wherein “while applying the second finishing operation; placing a slip sheet, relative to the set of output media, with a human-readable description of the first finishing instruction.” It is noted that the closest prior art, DeHority (US 5,129,639) shows a similar method of finish processing a set of output media comprising: based on a determination to process the set of output media by other than a first finishing operation of a received first finishing instruction; substitute a second finishing instruction corresponding to a second finishing operation for the first finishing instruction. Edens et al. (US 6,249,716) teaches placing a slip sheet relative to a set of output media. However, Eden and DeHority, either singularly or in combination, fail to anticipate or render the limitation: while applying the second finishing operation; placing a slip sheet, relative to the set of output media, with a human-readable description of the first finishing instruction, obvious.

Regarding claim 8: The cited references taken individually or in combination fails to particularly disclosed a method of finish processing a set of output media comprising: based on a determination to process the set of output media by other than a first finishing operation of a received first finishing instruction; substitute a second finishing instruction corresponding to a second finishing operation for the first finishing instruction wherein “while applying the second

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finishing operation; placing a slip sheet, relative to the set of output media, with a machine-readable description of the first finishing instruction.” It is noted that the closest prior art, DeHority (US 5,129,639), shows a similar method of finish processing a set of output media comprising: based on a determination to process the set of output media by other than a first finishing operation of a received first finishing instruction; substitute a second finishing instruction corresponding to a second finishing operation for the first finishing instruction. Edens et al. (US 6,249,716) teaches placing a slip sheet relative to a set of output media. However, Eden and DeHority, either singularly or in combination, fail to anticipate or render the limitation: while applying the second finishing operation; placing a slip sheet, relative to the set of output media, with a machine-readable description of the first finishing instruction, obvious.

Regarding claim 9: The cited references taken individually or in combination fails to particularly disclosed a method of finish processing a set of output media comprising: based on a determination to process the set of output media by other than a first finishing operation of a received first finishing instruction; substitute a second finishing instruction corresponding to a second finishing operation for the first finishing instruction wherein “while applying the second finishing operation; marking the set of output media with information including the first finishing instruction.” It is noted that the closest prior art, DeHority (US 5,129,639), shows a similar method of finish processing a set of output media comprising: based on a determination to process the set of output media by other than a first finishing operation of a received first finishing instruction; substitute a second finishing instruction corresponding to a second finishing operation

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for the first finishing instruction. However, DeHority fails to disclose “marking the set of output media with information including the first finishing instruction,” as claimed.

Regarding claim 15: The cited references taken individually or in combination fails to particularly disclosed generating a marker representing a desired finishing instruction of a print job, placing the marker at a selected location relative to a print job, wherein “the desired finishing instruction includes inserting additional media at a selected location relative to the print job, and the placing step comprises inserting the marker as a placeholder for the additional media.” It is noted that the closest prior art, Ojha (US 4,987,447) teaches generating a marker representing a desired finishing instruction of a print job, placing the marker at a selected location relative to a print job. However, Ojha fails to disclose the desired finishing instruction includes inserting additional media at a selected location relative to the print job, and the placing step comprises inserting the marker as a placeholder for the additional media, as claimed.

Regarding claim 20: The cited references taken individually or in combination fails to particularly disclosed printing system comprising: a processor determining compatibility between a finishing element and a desired finishing instruction, and upon determining incompatibility, selecting a compatible finishing instruction for the finishing element, wherein the finishing operation applied by the finishing element is selected from “a collating process, a registration process, a binding process, a cutting process, a hole forming process, and an abstract finishing process.” It is noted that the closest prior art, DeHority (US 5,129,639) shows a similar printing system comprising: a processor determining compatibility between a finishing element and a

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desired finishing instruction, and upon determining incompatibility, selecting a compatible finishing instruction for the finishing element. However, DeHority fails to disclose the operation applied by the finishing element is selected from a collating process, a registration process, a binding process, a cutting process, a hole forming process, and an abstract finishing process, as claimed.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chen et al. (US 5,822,506) teaches a printing and finishing system.

Gombault et al. (US 5,283,752) teaches a printing and finishing system.

Hube et al. (US 5,229,814) teaches to substitute paper stock in a printing system.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is (703) 305-0892

May 5, 2003

*King Yau Poon*